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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,109	09/26/2003	Todd Ames	2005.19	7731
29494	7590	09/22/2005	EXAMINER	
ROBERT H. HAMMER III, P.C. 3121 SPRINGBANK LANE SUITE I CHARLOTTE, NC 28226			VANATTA, AMY B	
			ART UNIT	PAPER NUMBER
			3765	

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/672,109	<b>Applicant(s)</b> AMES ET AL.	
	<b>Examiner</b> Amy B. Vanatta	<b>Art Unit</b> 3765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☒ Claim(s) 5, 14, 23 and 32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>092304, 012004</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the metal rollers being disposed between the pairs of rollers on the same side of the pairs of rollers, as recited in claims 19 and 28, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

2. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

There are two claims numbered as "33". Accordingly, the second claim "33" has been renumbered as "34" and the claims thereafter have been renumbered accordingly. Thus, misnumbered claims 33 (second occurrence), 34, and 35 been renumbered as 34, 35, and 36. They will be referred to below by these new numbers.

3. Claims 5, 14, 23 and 32 objected to because of the following informalities: These claims contain a typographical error. Specifically, "wherein one said pair or rollers" should read as "wherein one said pair of roller". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 6, 7, 15, 16, 24, 25, 33, and 34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6, 15, 24, and 33 are confusing in setting forth the ratio of the speed of the faster roller pair to that of the slower roller pair. The claims recite "the ratio of the

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faster roller pair to the other roller pair being in the range of 1 to 2". It appears that it is being claimed that the ratio of the speed of the faster roller pair to the speed of the slower roller pair is 1:2 ("1 to 2"). Thus, no "range" is actually set forth. The recitation "being in the range of" renders the claim confusing. Also, it should be clearly set forth that it is the speed of the roller pairs which are being compared in this ratio. The claim is indefinite in merely reciting a ratio of one roller pair to the other, without specifying that it is the speed of the one pair relative to the speed of the other pair which is at the claimed ratio.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-5, 8-14, 17-23, 26-32, 35 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Ames et al (US 6,253,431).

In US 6,253,431, Ames et al disclose a method and apparatus for making an absorbent composite including spreading a crimped tow in a direction perpendicular to the tow's travel by a banding jet 130. The tow is deregistered by roller assemblies 40, 60, 70 (see col. 4, lines 21-25 and col. 5, lines 1-4). Ames et al disclose a step of shaping the deregistered tow by means of device 240. A particulate is distributed onto the shaped tow by assembly 120, as claimed. The roller assemblies which deregister

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the tow comprise at least two pairs of rollers (42,44; 62,64; 72,73). Each pair of rollers comprises a metal-faced roller (42, 62, 72) and a rubber-faced roller (42,62,72).

Regarding claims 1 and 10, the metal faced rollers are "oppositely disposed between the pairs of rollers" to the extent claimed in that the metal rollers are positioned opposite one another with respect to the vertical plane extending between each roller pair (i.e. see the metal rollers 42, 62, and 72 which are positioned across from one another, and thus "opposite" one another, as shown in Fig. 1). Regarding claims 19 and 28, the metal faced rollers are disposed between the pairs of rollers on the same side of the pairs of rollers (i.e. the metal roller of each roller pair is positioned on the top, as shown in Fig. 1). Ames discloses that the metal roller may be grooved or threaded as in claims 2, 11, 20, and 29 (col. 4, lines 34-35 and 48-49). The rubber roller is smooth as claimed. The pairs of rollers are vertically aligned, with one roller (42, 62, 72) over the other (44, 64, 74, respectively) as claimed. Ames discloses that one pair of rollers rotates faster than the other pair of rollers (col. 4, lines 49-54) as in claims 5, 14, 23, and 32. The tow is shaped to a substantially rectangular cross section (col. 6, lines 56-57) as in claims 8, 17, 26, and 35. A liquid is applied to the tow by liquid additive assembly 80, as in claims 9, 18, 27, and 36.

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 6, 7, 15, 16, 24, 25, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ames et al (US 6,253,431).

In US 6,253,431, Ames et al disclose a method and apparatus for making an absorbent composite as claimed, including a pair of rollers (70) which rotate faster than the other pair of rollers (60). Ames teaches that the faster roller pair is between 20-60 percent faster than roller pair 60, preferably 30-50 percent (col. 4, lines 53-54). Ames does not specifically disclose that the ratio of the faster roller pair to the other roller pair is 1:2 or 1.1 to 1.7. It is within the ordinary skill in the art, however, to determine through routine experimentation the optimal speeds of the rollers, and in particular the optimal ratio of speeds between the roller pairs, depending upon the type and density of tow material which is being processed, and other parameters and conditions. It would have been obvious to one having ordinary skill in the art at the time the invention was made to rotate the roller pairs of Ames et al at a speed ratio of 1:2 or 1.1:1.7, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

### ***Conclusion***

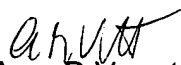
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy B. Vanatta whose telephone number is 571-272-4995. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Calvert can be reached on 571-272-4983. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Amy B Vanatta  
Primary Examiner  
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